

R E M A R K S

Claims 14 and 18 to 28 as set forth in Appendix II of this paper are now pending in this case. Claims 15 to 17 and 29 have been canceled, and Claims 14 and 18 to 28 have been amended, as indicated in Appendix I of this paper.

Accordingly, applicants have introduced the definition of the compounds Ia, Ib, and Ic previously set forth in Claims 15 to 17 into Claim 14. In addition to editorial changes, applicants have amended the preamble of Claim 14 to include a reference the utility of the composition in accordance with the disclosure on page 1, first paragraph, of the application. Also, the expression "pigment" has been replaced by the wording -solid which is insoluble in liquid electrolytes ...- in accordance with applicants' disclosure on page 5, indicated lines 23 to 25, of the application. The reference to " $\text{LiNi}_x\text{Co}_y\text{O}_2$ ,  $\text{LiNi}_x\text{Co}_y\text{Al}_z\text{O}_2$ , where  $0 < x, y, z \leq 1$ ," (Claim 14 as amended, previously Claim 16) has been revised to read  $\text{LiNi}_x\text{Co}_y\text{O}_2[\tau]$  and  $\text{LiNi}_x\text{Co}_y\text{Al}_z\text{O}_2$ , where  $0 < x, y, z \leq 1$ , to better bring out that the definition of x, y and z applies to both of the formulae. The superfluous formulae of poly(carbon sulfides) (previously Claim 16) and lithium metal compounds (previously Claim 17) have been omitted, and typographical errors such as the representation of indices in capital letters and the erroneous reference to "components I to III" have been corrected. Claims 18 to 21 have been revised accordingly, and the superfluous second reference to Claim 14 in Claim 22 has been deleted.

Claim 23 and 24 have been revised to recite the necessary process steps in accordance with applicants' disclosure on page 57, indicated line 18, to page 58, indicated line 6, of the application, and on page 60, indicated lines 4 to 7, in conjunction with the disclosure on page 57, indicated line 18, to page 58, indicated line 6, of the application, respectively. Further, applicants have made some editorial changes to allow for an easier understanding of the claims. No new matter has been added.

The Examiner has rejected Claims 14 and 18 to 28 under 35 U.S.C. §112, ¶2, for being indefinite. Favorable reconsideration of the Examiner's position and withdrawal of the rejection is respectfully solicited in light of the foregoing amendment which obviates the issues raised by the Examiner in her rejection. For clarity sake it is respectfully noted that the composition specified in Claim 14 has

anodic or cathodic properties only if the compound Ib or the compound Ic is present, either alone or in combination with a compound Ia. In addition to compositions wherein the compound Ib or the compound Ic is present is present either alone or in combination with a compound Ia, Claim 14 also relates to compositions wherein (I) is a compound Ia. The Examiner's arguments concerning Claims 23 to 26 that Claim 14 solely relates to a composition for an anode or a cathode is, therefore, not deemed to be well taken. Favorable action is solicited.

The Examiner has further rejected Claim 23 and 24 under 35 U.S.C. §101 for failing to set forth the steps involved in the method defined in those claims. Favorable reconsideration of the Examiner's position and withdrawal of the rejection is respectfully solicited in light of applicants' amendment which introduces the requisite steps.

In light of the foregoing and the attached, Claims 14 and 18 to 28 should now meet the provisions of Sections 101 and 112, ¶2, and the application should be in condition for allowance. Favorable action is respectfully solicited.


REQUEST FOR EXTENSION OF TIME:

It is respectfully requested that a one month extension of time be granted in this case. A check for the \$110.00 fee is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

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Encl.: THE CHANGES IN THE CLAIMS (Appendix I)

THE AMENDED CLAIMS (Appendix II)

HBK/BAS

## A P P E N D I X I:

THE CHANGES IN THE CLAIMS (version with markings, showing the changes made):

14. (amended) A composition for producing a solid electrolyte, a separator or an electrode in an electrochemical cell, or an electrochromic window, a display, a capacitor or an ion-conducting film in a sensor, which composition comprises ~~[comprising+]~~
- (a) from 1 to 99% by weight of a ~~[pigment]~~ solid (I) which is insoluble in liquid electrolytes used in said electrochemical cell, and which is selected from a group consisting of compounds Ia, Ib, Ic, mixtures of Ia and Ib, and mixtures of Ia and Ic, said compounds having a primary particle size of from 5 nm to 100  $\mu\text{m}$ , [which is a solid Ia or a compound Ib which acts as cathode material in electrochemical cells or a compound Ic which acts as anode material in electrochemical cells or a mixture of the solid Ia with the compound Ib or the compound Ic,
- (b) from 1 to 99% by weight of a polymeric material (II), ~~[which comprises+]~~

wherein

the compound Ia is selected from the group consisting of

inorganic oxides, mixed oxides, silicates, sulfates, carbonates, phosphates, nitrides, amides, imides and carbides of the elements of main groups I, II, III and IV and transition group IV of the Periodic Table, polymers selected from the group consisting of polyethylene, polypropylene, polystyrene, polytetrafluoroethylene, polyvinylidene fluoride, polyamides and polyimides; dispersions comprising said polymers; and a mixture of two or more thereof;

the compound Ib acts as cathode material and is selected from the group consisting of

$\text{LiCoO}_2$ ,  $\text{LiNiO}_2$ ,  $\text{LiNi}_x\text{Co}_y\text{O}_2$  and  $\text{LiNi}_x\text{Co}_y\text{Al}_z\text{O}_2$ , where  $0 < x, y, z \leq 1$ ,  $\text{Li}_x\text{MnO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Mn}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{MoO}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{MnO}_3$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{MnO}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Mn}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{V}_2\text{O}_4$  ( $0 < x \leq 2.5$ ),  $\text{Li}_x\text{V}_2\text{O}_3$  ( $0 < x \leq 3.5$ ),  $\text{Li}_x\text{VO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{WO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{WO}_3$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{TiO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Ti}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{RuO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Fe}_2\text{O}_3$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Fe}_3\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Cr}_2\text{O}_3$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{Cr}_3\text{O}_4$  ( $0 < x \leq 3.8$ ),  $\text{Li}_x\text{V}_3\text{S}_5$  ( $0 < x \leq 1.8$ ),  $\text{Li}_x\text{Ta}_2\text{S}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{FeS}$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{FeS}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{NbS}_2$  ( $0 < x \leq 2.4$ ),  $\text{Li}_x\text{MoS}_2$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{TiS}_2$

( $0 < x \leq 2$ ),  $\text{Li}_x\text{ZrS}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{NbSe}_2$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{VSe}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{NiPS}_2$  ( $0 < x \leq 1.5$ ),  $\text{Li}_x\text{FePS}_2$  ( $0 < x \leq 1.5$ ),  $\text{LiNi}_{1-x}\text{B}_x\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Al}_{1-x}\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Mg}_{1-x}\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Co}_{1-x}\text{VO}_4$  ( $1 \geq x \geq 0$ ),  $\text{LiNi}_x\text{Co}_y\text{Mn}_z\text{O}_2$  ( $x+y+z=1$ ),  $\text{LiFeO}_2$ ,  $\text{LiCrTiO}_4$ ,  $\text{Li}_a\text{M}_b\text{L}_c\text{O}_d$  ( $1.15 \geq a > 0$ ;  $1.3 \geq b+c \geq 0.8$ ;  $2.5 \geq d \geq 1.7$ ;  $M = \text{Ni, Co, Mn}$ ;  $L = \text{Ti, Mn, Cu, Zn, alkaline earth metal}$ ),  $\text{LiCu}_x\text{IIICu}_y\text{IIIMn}_{(2-(x+y))}\text{O}_4$  ( $2 > x+y \geq 0$ ),  $\text{LiCrTiO}_4$ ,  $\text{LiGa}_x\text{Mn}_{2-x}\text{O}_4$  ( $0.1 \geq x \geq 0$ ), poly(carbon sulfides),  $\text{V}_2\text{O}_5$ ; and a mixture of two or more thereof,

the compound Ic acts as an anode material and is selected from the group consisting of

lithium, a lithium-containing metal alloy, micronized carbon black, natural and synthetic graphite, synthetically graphitized carbon powder, a carbon fiber, titanium oxide, zinc oxide, tin oxide, molybdenum oxide, tungsten oxide, titanium carbonate, molybdenum carbonate, zinc carbonate,  $\text{Li}_x\text{M}_y\text{SiO}_z$  ( $1 > x \geq 0.1 > y \geq 0$ ,  $z > 0$ ),  $\text{Sn}_2\text{BPO}_4$ , conjugated polymers, lithium metal compounds; and a mixture of two or more thereof,

and wherein

where the solid (I) is the mixture of Ia and Ib, the composition further comprises from 0.1 to 20% by weight, based on the total weight of components I and II, of conductive carbon black; and

where the solid (I) is the mixture of Ia and Ic, the composition further comprises up to 20% by weight, based on the total weight of the components I and II, of conductive carbon black;

and wherein said polymeric material (II) comprises

[Ia] from 1 to 100% by weight of a polymer or copolymer (IIa) which has, as part of the polymer chain, at the end(s) of [the] said chain and/or laterally on [the] said chain, reactive groups (RG) which are capable of crosslinking reactions under the action of heat and/or UV radiation, and

[Ib] from 0 to 99% by weight of at least one polymer or copolymer (IIb) which is free of reactive groups (RG).

Claims 15 to 17 have been canceled.

15. (canceled) ~~A composition as claimed in claim 14, wherein the pigment I is a solid Ia which is selected from the group consisting of oxides, mixed oxides, silicates, sulfates, carbonates, phosphates, nitrides, amides, imides and carbides of the elements of~~

~~main groups I., II., III. and IV. and transition group IV. of the Periodic Table;~~

~~a polymer selected from the group consisting of polyethylene, polypropylene, polystyrene, polytetrafluoroethylene, polyvinylidene fluoride, polyamides and polyimides; and solids dispersion comprising such a polymer; and~~

~~a mixture of two or more thereof.~~

16. (canceled) A composition as claimed in claim 14, wherein the pigment I is a compound Ib which acts as cathode material in electrochemical cells and is selected from the group consisting of  $\text{LiCoO}_2$ ,  $\text{LiNiO}_2$ ,  $\text{LiNi}_x\text{Co}_y\text{O}_2$ ,  $\text{LiNi}_x\text{Co}_y\text{Al}_z\text{O}_2$ , where  $0 < x, y, z \leq 1$ ,  $\text{Li}_x\text{MnO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Mn}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{MoO}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{MnO}_3$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{MnO}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Mn}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{V}_2\text{O}_4$  ( $0 < x \leq 2.5$ ),  $\text{Li}_x\text{V}_2\text{O}_3$  ( $0 < x \leq 3.5$ ),  $\text{Li}_x\text{VO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{WO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{WO}_3$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{TiO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Ti}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{RuO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Fe}_2\text{O}_3$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Fe}_3\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Cr}_2\text{O}_3$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{Cr}_3\text{O}_4$  ( $0 < x \leq 3.8$ ),  $\text{Li}_x\text{V}_3\text{S}_5$  ( $0 < x \leq 1.8$ ),  $\text{Li}_x\text{Ta}_2\text{S}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{FeS}$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{FeS}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{NbS}_2$  ( $0 < x \leq 2.4$ ),  $\text{Li}_x\text{MoS}_2$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{TiS}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{ZrS}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{NbSe}_2$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{VSe}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{NiPS}_2$  ( $0 < x \leq 1.5$ ),  $\text{Li}_x\text{FePS}_2$  ( $0 < x \leq 1.5$ ),  $\text{LiNi}_x\text{B}_{1-x}\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Al}_{1-x}\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Mg}_{1-x}\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Co}_{1-x}\text{VO}_4$  ( $1 \geq x \geq 0$ ),  $\text{LiNi}_x\text{Co}_y\text{Mn}_z\text{O}_2$  ( $x+y+z=1$ ),  $\text{LiFeO}_2$ ,  $\text{LiCrTiO}_4$ ,  $\text{Li}_a\text{M}_b\text{L}_c\text{O}_d$  ( $1.15 \geq a > 0$ ,  $1.3 \geq b+c \geq 0.8$ ,  $2.5 \geq d \geq 1.7$ ,  $M = \text{Ni, Co, Mn}$ ,  $L = \text{Ti, Mn, Cu, Zn, alkaline earth metal}$ ),  $\text{LiCu}_x\text{II Cu}_y\text{IIIMn}_{2-(x+y)}\text{O}_4$  ( $2 > x+y \geq 0$ ),  $\text{LiCrTiO}_4$ ,  $\text{LiGa}_x\text{Mn}_{2-x}\text{O}_4$  ( $0.1 \geq x \geq 0$ ), poly(carbon sulfides) of the structure:  $[\text{C}(\text{S}_x)]_n$ ,  $\text{V}_2\text{O}_5$ , a mixture of two or more thereof, and a mixture of compound Ib with the solid Ia, and the composition further comprises from 0.1 to 20% by weight, based on the total weight of components I to III, of conductive carbon black.

17. (canceled) A composition as claimed in claim 14, wherein the pigment I is a compound Ic which acts as an anode material in electrochemical cells and is selected from the group consisting of lithium, a lithium-containing metal alloy, micronized carbon black, natural and synthetic graphite, synthetically graphitized carbon powder, a carbon fiber, titanium oxide, zinc oxide, tin oxide, molybdenum oxide, tungsten oxide, titanium carbonate, molybdenum carbonate, zinc carbonate,  $\text{Li}_x\text{M}_y\text{SiO}_2$  ( $1 > x \geq 0.1 > y \geq 0$ ,

~~z > 0), Sn<sub>2</sub>BPO<sub>4</sub>, conjugated polymers, lithium metal compounds Li<sub>x</sub>M and a mixture of two or more thereof and a mixture of the compound Ic with the solid Ia, and the composition further comprises up to 20% by weight, based on the total weight of the components I to III, of conductive carbon black.~~

18. (amended) [A] The composition as claimed in claim 14, wherein the polymer (IIa) has, as part of ~~[the]~~ said chain, at the end(s) of ~~[the]~~ said chain and/or laterally on ~~[the]~~ said chain, at least one reactive group R<sub>Ga</sub> which in the triplet excited state under the action of heat and/or UV radiation is capable of hydrogen abstraction and has, as part of ~~[the]~~ said chain, at the end(s) of ~~[the]~~ said chain and/or laterally on ~~[the]~~ said chain, at least one group R<sub>Gb</sub> which is different from R<sub>Ga</sub> and is coreactive with R<sub>Ga</sub>, with at least one group R<sub>Ga</sub> and at least one group R<sub>Gb</sub> being present on average over all polymer molecules.
19. (amended) [A] The composition as claimed in claim 14, wherein the polymer (IIa) is a polymer or copolymer of an acrylate or methacrylate and has reactive groups R<sub>Ga</sub> which comprise benzophenone units and reactive groups R<sub>Gb</sub> which comprise dihydrodicyclopentadiene units.
20. (amended) [A] The composition as claimed in claim 14, wherein the polymer (IIb) is selected from the group consisting of  
a polymer or copolymer of vinyl chloride, acrylonitrile, vinylidene fluoride;  
a copolymer of vinyl chloride and vinylidene chloride, vinyl chloride and acrylonitrile, vinylidene fluoride and hexafluoropropylene, vinylidene fluoride and hexafluoropropylene;  
a terpolymer of vinylidene fluoride and hexafluoropropylene together with a member of the group consisting of vinyl fluoride, tetrafluoroethylene and trifluoroethylene.
21. (amended) [A] The composition as claimed in claim [14] 19, wherein ~~[the polymer IIa is a polymer and]~~ the polymer (IIb) is a copolymer of vinylidene fluoride and hexafluoropropylene.
22. (amended) A composite comprising at least one first layer which comprises [a] the composition ~~[as claimed]~~ defined in claim 14 comprising [a] the compound Ib or [a] the compound Ic, and at least one second layer which comprises [a] the composition [as

- ~~claimed in claim 14]~~ which comprises ~~[a solid]~~ the compound Ia and is free of the compounds Ic and Ib.
23. (amended) ~~[Method of using a composition as claimed in claim 14 for]~~ A method of producing a solid electrolyte, a separator, [or an electrode or in] a sensor, an electrochromic window, a display, a capacitor or an ion-conducting film which comprises crosslinking the composition defined in claim 14 thermally or by irradiation with ionic or ionizing radiation, an electron beam, UV or visible light, by electrochemically induced polymerization or by ionic polymerization.
24. (amended) ~~[Method of using a composite as claimed in]~~ A method of producing the composite defined in claim 22 [for producing a solid electrolyte, a separator or an electrode, or in a sensor, an electrochromic window, a display, a capacitor or an ion-conducting film] which comprises
- (I) producing the at least one first layer by crosslinking the composition comprising the compound Ib or the compound Ic thermally or by irradiation with ionic or ionizing radiation, an electron beam, UV or visible light, by electrochemically induced polymerization or by ionic polymerization,
- (II) producing the at least one second layer by crosslinking the composition comprising the compound Ia and being free of the compounds IB and Ic thermally or by irradiation with ionic or ionizing radiation, an electron beam, UV or visible light, by electrochemically induced polymerization or by ionic polymerization, and
- (III) combining the at least one first layer and the at least one second layer by means of a conventional coating process.
25. (amended) A solid electrolyte, separator, electrode, sensor, electrochromic window, display, capacitor or ion-conducting film, in each case ~~[comprising a composition as claimed in claim 14]~~ obtained by the method of claim 23.
26. (amended) A solid electrolyte, separator, electrode, sensor, electrochromic window, display, capacitor or ion-conducting film, in each case comprising [a] the composite [as claimed in claim 22] obtained by the method of claim 24.

27. (amended) An electrochemical cell comprising [a] the solid electrolyte, [a] the separator or [an] the electrode [~~as claimed~~] defined in claim 25 or a combination of two or more thereof.
28. (amended) An electrochemical cell comprising [a] the solid electrolyte, [a] the separator or [an] the electrode [~~as claimed~~] defined in claim 26 or a combination of two or more thereof.

Claim 29 has been canceled.

29. (~~canceled~~) ~~Method of using a polymer IIa as defined in claim 14 as crosslinker system in a solid electrolyte, a separator or an electrode.~~



## A P P E N D I X II:

THE AMENDED CLAIMS (clean version):

14. (amended) A composition for producing a solid electrolyte, a separator or an electrode in an electrochemical cell, or an electrochromic window, a display, a capacitor or an ion-conducting film in a sensor, which composition comprises

(a) from 1 to 99% by weight of a solid (I) which is insoluble in liquid electrolytes used in said electrochemical cell, and which is selected from a group consisting of compounds Ia, Ib, Ic, mixtures of Ia and Ib, and mixtures of Ia and Ic, said compounds having a primary particle size of from 5 nm to 100  $\mu\text{m}$ ,

(b) from 1 to 99% by weight of a polymeric material (II),  
wherein

the compound Ia is selected from the group consisting of

inorganic oxides, mixed oxides, silicates, sulfates, carbonates, phosphates, nitrides, amides, imides and carbides of the elements of main groups I, II, III and IV and transition group IV of the Periodic Table, polymers selected from the group consisting of polyethylene, polypropylene, polystyrene, polytetrafluoroethylene, polyvinylidene fluoride, polyamides and polyimides; dispersions comprising said polymers; and a mixture of two or more thereof;

the compound Ib acts as cathode material and is selected from the group consisting of

$\text{LiCoO}_2$ ,  $\text{LiNiO}_2$ ,  $\text{LiNi}_x\text{Co}_y\text{O}_2$  and  $\text{LiNi}_x\text{Co}_y\text{Al}_z\text{O}_2$ , where  $0 < x, y, z \leq 1$ ,  $\text{Li}_x\text{MnO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Mn}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{MoO}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{MnO}_3$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{MnO}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Mn}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{V}_2\text{O}_4$  ( $0 < x \leq 2.5$ ),  $\text{Li}_x\text{V}_2\text{O}_3$  ( $0 < x \leq 3.5$ ),  $\text{Li}_x\text{VO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{WO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{WO}_3$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{TiO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Ti}_2\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{RuO}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{Fe}_2\text{O}_3$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Fe}_3\text{O}_4$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{Cr}_2\text{O}_3$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{Cr}_3\text{O}_4$  ( $0 < x \leq 3.8$ ),  $\text{Li}_x\text{V}_3\text{S}_5$  ( $0 < x \leq 1.8$ ),  $\text{Li}_x\text{Ta}_2\text{S}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{FeS}$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{FeS}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{NbS}_2$  ( $0 < x \leq 2.4$ ),  $\text{Li}_x\text{MoS}_2$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{TiS}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{ZrS}_2$  ( $0 < x \leq 2$ ),  $\text{Li}_x\text{NbSe}_2$  ( $0 < x \leq 3$ ),  $\text{Li}_x\text{VSe}_2$  ( $0 < x \leq 1$ ),  $\text{Li}_x\text{NiPS}_2$  ( $0 < x \leq 1.5$ ),  $\text{Li}_x\text{FePS}_2$  ( $0 < x \leq 1.5$ ),  $\text{LiNi}_{1-x}\text{B}_x\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Al}_{1-x}\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Mg}_{1-x}\text{O}_2$  ( $0 < x < 1$ ),  $\text{LiNi}_x\text{Co}_{1-x}\text{VO}_4$  ( $1 \geq x \geq 0$ ),  $\text{LiNi}_x\text{Co}_y\text{Mn}_z\text{O}_2$  ( $x+y+z=1$ ),  $\text{LiFeO}_2$ ,  $\text{LiCr-}$

$\text{TiO}_4$ ,  $\text{Li}_a\text{M}_b\text{L}_c\text{O}_d$  ( $1.15 \geq a > 0$ ;  $1.3 \geq b+c \geq 0.8$ ;  $2.5 \geq d \geq 1.7$ ;  $\text{M} = \text{Ni}, \text{Co}, \text{Mn}$ ;  $\text{L} = \text{Ti}, \text{Mn}, \text{Cu}, \text{Zn}, \text{alkaline earth metal}$ ),  $\text{LiCu}_x\text{IICu}_y\text{IIIMn}_{(2-(x+y))}\text{O}_4$  ( $2 > x+y \geq 0$ ),  $\text{LiCrTiO}_4$ ,  $\text{LiGa}_x\text{Mn}_{2-x}\text{O}_4$  ( $0.1 \geq x \geq 0$ ), poly(carbon sulfides),  $\text{V}_2\text{O}_5$ ; and a mixture of two or more thereof,

the compound Ic acts as an anode material and is selected from the group consisting of

lithium, a lithium-containing metal alloy, micronized carbon black, natural and synthetic graphite, synthetically graphitized carbon powder, a carbon fiber, titanium oxide, zinc oxide, tin oxide, molybdenum oxide, tungsten oxide, titanium carbonate, molybdenum carbonate, zinc carbonate,  $\text{Li}_x\text{M}_y\text{SiO}_z$  ( $1 > x \geq 0.1 > y \geq 0$ ,  $z > 0$ ),  $\text{Sn}_2\text{BPO}_4$ , conjugated polymers, lithium metal compounds; and a mixture of two or more thereof,

and wherein

where the solid (I) is the mixture of Ia and Ib, the composition further comprises from 0.1 to 20% by weight, based on the total weight of components I and II, of conductive carbon black; and

where the solid (I) is the mixture of Ia and Ic, the composition further comprises up to 20% by weight, based on the total weight of the components I and II, of conductive carbon black;

and wherein said polymeric material (II) comprises

from 1 to 100% by weight of a polymer or copolymer (IIa) which has, as part of the polymer chain, at the end(s) of said chain and/or laterally on said chain, reactive groups (RG) which are capable of crosslinking reactions under the action of heat and/or UV radiation, and

from 0 to 99% by weight of at least one polymer or copolymer (IIb) which is free of reactive groups (RG).

18. (amended) The composition as claimed in claim 14, wherein the polymer (IIa) has, as part of said chain, at the end(s) of said chain and/or laterally on said chain, at least one reactive group  $\text{RG}_a$  which in the triplet excited state under the action of heat and/or UV radiation is capable of hydrogen abstraction and has, as part of said chain, at the end(s) of said chain and/or laterally on said chain, at least one group  $\text{RG}_b$  which is different from  $\text{RG}_a$  and is coreactive with  $\text{RG}_a$ , with at least one group  $\text{RG}_a$  and at least one group  $\text{RG}_b$  being present on average over all polymer molecules.

19. (amended) The composition as claimed in claim 14, wherein the polymer (IIa) is a polymer or copolymer of an acrylate or methacrylate and has reactive groups R<sub>Ga</sub> which comprise benzophenone units and reactive groups R<sub>Gb</sub> which comprise dihydrodicyclopentadiene units.
20. (amended) The composition as claimed in claim 14, wherein the polymer (IIb) is selected from the group consisting of  
a polymer or copolymer of vinyl chloride, acrylonitrile, vinylidene fluoride;  
a copolymer of vinyl chloride and vinylidene chloride, vinyl chloride and acrylonitrile, vinylidene fluoride and hexafluoropropylene, vinylidene fluoride and hexafluoropropylene;  
a terpolymer of vinylidene fluoride and hexafluoropropylene together with a member of the group consisting of vinyl fluoride, tetrafluoroethylene and trifluoroethylene.
21. (amended) The composition as claimed in claim 19, wherein the polymer (IIb) is a copolymer of vinylidene fluoride and hexafluoropropylene.
22. (amended) A composite comprising at least one first layer which comprises the composition defined in claim 14 comprising the compound Ib or the compound Ic, and at least one second layer which comprises the composition which comprises the compound Ia and is free of the compounds Ic and Ib.
23. (amended) A method of producing a solid electrolyte, a separator, a sensor, an electrochromic window, a display, a capacitor or an ion-conducting film which comprises crosslinking the composition defined in claim 14 thermally or by irradiation with ionic or ionizing radiation, an electron beam, UV or visible light, by electrochemically induced polymerization or by ionic polymerization.
24. (amended) A method of producing the composite defined in claim 22 which comprises  
(I) producing the at least one first layer by crosslinking the composition comprising the compound Ib or the compound Ic thermally or by irradiation with ionic or ionizing radiation, an electron beam, UV or visible light, by electrochemically induced polymerization or by ionic polymerization,

(II) producing the at least one second layer by crosslinking the composition comprising the compound Ia and being free of the compounds IB and IC thermally or by irradiation with ionic or ionizing radiation, an electron beam, UV or visible light, by electrochemically induced polymerization or by ionic polymerization, and

(III) combining the at least one first layer and the at least one second layer by means of a conventional coating process.

25. (amended) A solid electrolyte, separator, electrode, sensor, electrochromic window, display, capacitor or ion-conducting film, in each case obtained by the method of claim 23.
26. (amended) A solid electrolyte, separator, electrode, sensor, electrochromic window, display, capacitor or ion-conducting film, in each case comprising the composite obtained by the method of claim 24.
27. (amended) An electrochemical cell comprising the solid electrolyte, the separator or the electrode defined in claim 25 or a combination of two or more thereof.
28. (amended) An electrochemical cell comprising the solid electrolyte, the separator or the electrode defined in claim 26 or a combination of two or more thereof.
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